Springtime Mania

Mania peaks in spring, and the risk varies by city. Moods follow the seasons. Rates of depression rise in winter and mania peaks in spring. It's not the amount of sunlight that triggers spring mania but the rapid increase in light. That rate of change varies by region. The technical term for this rate is the "maximum monthly increase in solar insolation (kWh/m2/day)." I've calculated that figure using NASA data for major American cities so you can check your rate below.

In some cities, like those in the Northeastern U.S., there are two peaks in spring sunlight, but the peaks are relatively mild. The rise in sunlight is more intense in the Sunbelt and the Northern mid-west.

Patients with bipolar disorder can protect themselves from the risk of mania during this period by wearing blue-light filtering glasses 2 hours before bed (see *The Carlat Psychiatry Report*, February 2019).

Rise in Spring Sunlight in U.S. Cities, from Most Rapid to Least Rapid

City	Month of Rapid Increase	Rate of Change kWh/m2/day
Phoenix, AZ	April	1.59
San Francisco, CA	April	1.53
Los Angeles, CA	April	1.52
Salt Lake City, UT	April	1.49
St. Louis, MO	April	1.48
Anchorage, AK	April	1.45
Fargo, ND	April	1.44
Great Falls, MT	April	1.43
Louisville, KY	April	1.43
Columbia, SC	April	1.41
Indianapolis, IN	April	1.41
Albuquerque, NM	April	1.39
Columbus, OH	April	1.38
Tulsa, OK	April	1.37
Sioux Falls, SD	April	1.35
Casper, WY	April	1.34
Little Rock, AR	April	1.34
Billings, MT	April	1.31
Kansas City, MO	April	1.30

City	Month of Rapid Increase	Rate of Change kWh/m2/day
Denver, CO	April	1.29
Omaha, NE	April	1.29
Chicago, IL	April	1.28
Minneapolis, MN	April	1.25
Dobuque, IA	April	1.23
Trenton, NJ	May	1.22
Nashville, TN	April	1.22
Milwaukee, WI	April	1.19
Seattle, WA	March and April	1.19
Houston, TX	February and April	1.19
New York, NY	March and May	1.18
Portland, ME	March	1.16
Portland, OR	March	1.16
Detroit, MI	April and May	1.15
San Antonio, TX	February and April	1.13
Jackson, MS	April and May	1.13
New Orleans, LA	February and April	1.13
Atlanta, GA	February and April	1.12
Philadelphia, PA	May	1.11
Dover, DE	May	1.11
Birmingham, AL	April	1.10
Providence, RI	March	1.07
Hartford, CT	March and May	1.07
Charlotte, NC	April	1.03
Manchester, NH	March and May	1.01
Boston, MA	March and May	1.01
Annapolis, MD	May	0.99
Miami, FL	April	0.98
Pittsburgh, PA	May	0.98

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City	Month of Rapid Increase	Rate of Change kWh/m2/day
Washington, DC	May	0.96
Montpelier, VT	February, March and May	0.96
Charleston, WV	May	0.94
Honolulu, HI	March	0.84

Scientific Notes

These figures were calculated from data at SolarInsolation.org and NASA. They reflect the total exposure of sunlight during the day and not just the length of the day. That means the angle of the sun is just as important as the duration of sunlight.

The relationship of spring sunlight to mania is derived from two lines of research. One has confirmed a rise in mania during the spring. The other has found that bipolar disorder starts earlier in people who grow up in places where there's a dramatic rise in sunlight in the spring.

From the Article

"Does Mania Follow the Sun?"
by Chris Aiken, MD

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